IDS 1999-0408

# ABSTRACT OF THE DISCLOSURE

A multiple access communication protocol includes an uplink channel and a downlink channel is disclosed. The uplink channel has a plurality of frames, such that each frame has a first selectable number of minislots and a second selectable number of slots. A reservation request of a first type is sent into a first selected minislot of a selected frame of the uplink channel when information of a first type is to be sent. The reservation request of the first type requests an assignment for at least one slot for transmitting information of the first type in at least one frame that is subsequent to the selected frame. A reservation request of the second type is sent into a second selected minislot of the selected frame when the second selected minislot is available in the selected frame and when information of a second type is to be sent. The reservation request of the second type requests an assignment of at least one slot for transmitting information of the second type in at least one frame that is subsequent to the selected frame, and contends for the second selected minislot based on a blocked binary tree algorithm. The downlink channel contains a feedback message that occurs prior to the end of the selected frame of the uplink channel. The feedback message includes minislot assignment information for sending reservation requests of the first and the second type and slot assignment information for transmitting information of the first and the second type, minislot contention information for the reservation requests of the second type sent in the selected frame, and allocation time information for the reservation requests of the

63

IDS 1999-0408

second type to be initiated in a frame after the selected frame on behalf of the information of

the second type.